DOCUMENT RESUME

ED 188 196 CS 205 622

AUTHOR Robinson, Constance Frazier
TITLE An Investigation of New Rhetoric Lessons for Improved Written Composition on the Secondary School Level.
PUB DATE 78
NOTE 35p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Educational Research; English Instruction; *Paragraph Composition; *Rhetoric; Secondary Education; Secondary School Students; *Writing (Composition); *Writing Instruction
IDENTIFIERS *Writing Research

ABSTRACT

A study was undertaken to assess the effectiveness of a new rhetoric program of composition instruction for secondary school students. The lessons used in the program were designed to provide students with a step-by-step procedure for moving from a topic sentence to a unified, coherent paragraph. Using the primacy of the topic sentence, they led the students to recognize the assertion made by the predicate of the topic sentence as the assertion made by the paragraph. The lessons were intended to guide students through manipulations presumed basic to paragraph composition. A total of 180 seventh, eighth, and ninth grade students (90 in the experimental group and 90 in the control group) participated in the study. Students in the control group were placed in traditional English classes that had been augmented with 18 composition lessons. Students in the experimental group were placed in similar classes, except that the composition instruction employed the new rhetoric lessons. After six months, student-written paragraphs were analyzed for effectiveness. The results indicated that the experimental group wrote paragraphs that were more effective than those written by the control group and that the effectiveness was due to superiority in unity, coherence, and content. The findings also revealed equivalent effectiveness in the areas of language, sentence structure, and mechanical correctness. (FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED188196

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

AN INVESTIGATION OF NEW RHETORIC LESSONS FOR INPROVED WRITTEN COMPOSITION ON THE SECONDARY SCHOOL LEVEL

Constance Frazier Robinson, Ph.D.
363 Middle Road
Farmington, CT 06032
1-203-521-7599

District Coordinator of English
and Reading
New Britain Public Schools
New Britain, Connecticut

Hartford Public School System

1978

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Constance Frazier Robinson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS205622

Recent inquiry into the composing process of written expression suggests a rhetoric of the paragraph, but this rhetoric has yet to be fully enunciated. Already the rhetoric of the sentence explains the ways in which sentences gain fluency so that students might build their own sentences to maturity. Now the rhetoric of discourse beyond the sentence must be defined. Teachers must attempt to centralize and organize knowledge about the rhetoric of the paragraph. The componenets of paragraph rhetoric are all about us waiting to be gathered and defined. Paragraph rhetoric will provide material for a writing curriculum and will make written composition teachable. Winterowd (1971, p.70) predicts that "new rhetoric will bring about a synthesis of invention, arrangement, and style and in the process develop a theory of rhetoric far more viable than the traditional fragmented, compartmentalized written composition instruction." Thus far we know that units of discourse beyond the sentence mirror universal patterns of experience and of thought. We also know that these units of discourse are structurally describable.

EZERASE
COTTON CONTENT

The purpose of this research was to test application of the belief that written composition has an underlying structure which gives unity and boundaries to the field. The methodology under study is based on the concept that written composition can be conceived in terms of principles and forms similar to those found in music and visual art, and that these principles and forms need to be taught in an orderly sequence. The specific purpose of this investigation was to begin to assess the effectiveness of a new rhetoric program of compositon instruction for secondary students. These lessons were designed to provide students a step-by-step procedure for moving from a topic sentence to a unified, coherent paragraph. Using the primacy of the topic sentence, the students were led to recognize the assertion made by the topic predicate (predicate of the topic sentence) as the assertion to be made by the paragraph. These writing exercises guided secondary students through thought manipulations presumed basic to paragraph composition.

BACKGROUND AND RELATED LITERATURE

Between 1964 and 1969 studies of Bateman and Ziodonis (1964), Miller and Ney (1968), and Mellon (1969) indicated that the transformational grammar approach has an effect on student writing. The transformational grammar approach employed by these researchers made use of the study of sentence-structure theory coupled with intensive practice in combining sub-ordinate sentences with a main sentence to create a single sentence in which all the sub-ideas were embedded and appropriately related to the main idea. In 1971 O'Hare conducted a study employing

sentence-combining without transformational grammar instruction and reported that the sentence-combining itself improved the quality of student writing (1973). These studies, and the increased understanding of the sentence they have made possible, are the forerunner of the search for the grammar of the paragraph.. Linguists, having extended new grammar to new rhetoric, have inspired a renewed interest in classical rhetoric.

Christensen asserts: Grammar maps out the possible, rhetoric narrows down the possible to the desirable or the effective (1968, p.67). According to Stienmann, (1967) new rhetoric, like classical rhetoric, describes how to build arguments that coerce, by their cogency, the agreement of all who will read them. The fundamental aim of the revival of rhetoric is pedagological rhetoric (p.26).

Classical rhetoric was divided into five processes--invention, arrangement, style, memory and delivery. Memory and delivery are primarily the concern of the speaker, and therefore, will not be discussed here. Style is concerned with the expressions used by the writer. It includes such considerations as word choice, the structure of sentences, the use of figures of speech, and other devices which give clarity, force, and beauty to ideas. It is the effective use of language rather than simple the correct use of language. Arrangement has to do with proper placing of the parts of a composition. It is the means by which the writer decides when to use his material. Invention is the process of finding the right arguments (topics) and of finding ideas that will work when addressed to a particular audience. Invention is the means by which the writer decides what to say to his audience.

The permanent bond between classical rhetoric and new rhetoric is expressed by I.A. Richards: "In old rhetoric there is much that new rhetoric finds useful and much besides that will be advantageous.

until man changes his nature, his manner of debate and dispute, and his impulse to cajole his fellows." (1965, p.24). New rhetoric, like classical rhetoric, must make valid generalizations about present-day discourse in such a way that generalizations are predictive (Winterowd, 1968).

To date, the most definitive research in new rhetoric has been concerned with style--the rhetoric of the sentence. Transformational or sometimes called generative grammar makes use of sentence-combining practice to develop sentence fluency in student writing. Although Mellon (1969) contended that his instruction was "a-rhetorical," there is rather general agreement among linguists that sentence-combining constitutes rhetorical style. After a thorough review of the literature and his own significant research with sentence-combining, O'Hare (1973) defines sentence-combining as style and advises that it be taught with the other members of the classical rhetoricians tripod, invention and arrangement (p. 76).

Grammars of the paragraph developed to the pedagogical level are Christensen's generative rhetoric of the paragraph, a direct descendent of his own generative rhetoric of the sentence (1969); and Becker's (1966) tagmemic approach, an outgrowth of his work with Hunt's (1965) T-unit theory of sentence structure and meaning.

Christensen, (1965) suggests that the methods of paragraph development are simple methods of development. They are no more relevant to the paragraph than, on the short side, to the sentence, or on the long side, to a run of several paragraphs. They are the channels our minds naturally run in whether we are writing a sentence or a paragraph or planning a paper (p. 55). For Christensen, a paragraph is a sequence of

structurally related sentences--a group of sentences related to one another by coordination and subordination. The topic sentence is comparable to the base clause of a sentence (p.59).

Analysis of paragraphs and readers' response to discourse led to Becker's (1966) development of the tagmemic theory of paragraph development. This theory identifies three signals of the internal structure of paragraphs. Indentation, equivalance classes, and lexical transition. Indentation is to the paragraph what the period is to the sentence. Equivalance classes describe words and groups of words which appear throughout the paragraph and express equivalant meaning. Lexical transitions are such expressions as "on the other hand" or "thus." This three-signal concept provides valuable insight into how a paragraph conveys meaning coherently.

Becker (1966) describes two major paragraph forms, one made up of a topic (T), a restriction (R), and an illustration (I). In the T slot the topic is stated, in the R slot the topic is narrowed down, restricted, or defined, and in the I slot the topic is illustrated or described at a lower level of generality. The second major pattern of expository paragraph has two slots, which can be labelled problem (P) and solution (S). The P slot, often in question form, is the statement of a problem or an effect which is to be explained; and the S slot states the solution or cause of P. If it is extended, the S slot very often has an internal structure of TRI.

Research in composition pedagogy indicates that the possibility of adequate composition instruction rests with the identification of significant concepts and principles which will comprise the <u>discipline</u> or written composition. Christensen's generative theory, is reported

to be effective for improving college students' written composition by Christensen (1968), D'Angelo (1976), Hogan (1977). Becker's tagmemic theory has been shown to have practical application for college freshmen by Younger and Koen (1973).

That the review of the literature of pedagogical rhetorical research yields so little empirical data led Neuleib (1977) to warn that: There must be more research done. One good research investigation on grammar and composition within a seven-year span in the entire English speaking world is sparse evidence for drawing absolute conclusions. Duplications and re-evaluations must be the norm if we are to do our best in teaching our students to write.

RESEARCH COMPOSITION THEORY AND PRACTICE

The writing instruction used during this study reflects the researchers experiences as a corrective reading teacher, college composition teacher, and as supervisor of secondary school English teachers. Therefore, the instruction acknowledges four basic requirements of the reader and provides for writing students and teachers concrete nomenclature, functional tools, and specific procedures which enable the writer to compose readable prose.

1. The reader must know what the paragraph is about, the topic. By using the topic noun, the writer makes it possible for the reader to know with certainty what the paragraph is about. The topic noun is the subject of the topic sentence. This writing instruction required students to include the topic noun, though not as the subject, in every sentence of the paragraph by repetition, reference, or implication. The writer's use of the topic noun is based on this advice to readers by Leedy (1963).

> Like a drone bass through the polyphony of a chant, throughout every paragraph one noun is predominant. Upon this noun the paragraph weaves thought variations of intricate design. This thing may be as tangible as house or land, or as tenuous as love or infinity or the phantasmagorial wavering of thought itself. But however the ideas may shift and shimmer, at the dead center of every paragraph is a noun. It is this noun which is the substance and the heart of the central, or main thought. In fact, the whole central idea is but a complete assertion, amplified and elaborated, made by the paragraph about this polar noun.
>
> Paul Leedy

The above paragraph both defines and illustrates the topic noun, but the next paragraph from the Atlantic Monthly offers convincing evidence that until the topic noun is located and verified there is uncertainty as to the topic of the paragraph.

> A man plants his garden in the springs, and out of the self-same backyard soil he gets the white of the lily, the blue of the violet, and the damask of the rose. The rains come down to water it, and when the storm is over the rainbow sets itself, in the sky with all the seven sisters of light. The hummingbird and pigeon come to visit him, and as they move in the beams of noon they flash back metallic lusters in the sun. At evening the sun goes down and the heavens unlock their treasuries of color. They play upon the eye with the tints of the opal and the pearl; and then the moon comes up like a red balloon and turns to silver as it rises. And when the season is over and crops are gathered and nature has felt the frosts of the fall, there is a sudden astonishing glory in the oak, the maple and the birch.
>
> Charles Stuart

No satisfactory statement of this paragraph's main idea can be made until "the colors of nature" is recognized as the topic noun. (Topic nouns are underscored in each sentence.)

2. The reader must know what has been said about the topic. By stating (or implying) a topic predicate the writer makes it possible for the reader to grasp the main idea of the paragraph. The topic predicate is the predicate of the topic sentence and contains the

idea that will be expressed throughout the paragraph. This writing instruction required students to write from topic sentences only.

3. The reader must be able to list, explain, or illustrate the content of the paragraph. By selecting details, reasons, and examples that expand the topic predicate the writer makes it possible for the reader to recognize and recall the information that supports the main idea of the paragraph. This writing instruction required students to make a Writer's Chart which enumerated the details, reasons and examples to be used when expanding the topic sentence.

4. The reader must know how the ideas within the paragraph are related to the main idea and to one another. By using comparing phrases (details "lead to," reasons "tell why," and examples "show that") to judge the relevance of ideas, by purposeful ordering ideas, and by including signal words, the writer is able to make thought relationships clear to the reader. This writing instruction required students to place on Writer's Charts the relationships they intended to develop and to use signal words suitable to their purpose. Sentences that contained ideas directly related to the topic sentence were called clarifying sentences. Sentences used to expand clarifying sentences were called secondary sentences.

Before writing, students analyzed model paragraphs and formulated Analysis Charts. During this activity concepts were defined and discussed. Model paragraphs and typical analysis charts were as illustrated.

Paragraph Model #1:

The segments of an ant's body can go on living for awhile even after being broken apart. (2) Each has its own blood supply, its own breathing

tubes, and separate nerves to operate its muscles. (3) After the head is cut off, its jaws go on biting and its feelers go on feeling. (4) The middle section, with six legs, can go on running and kicking. (5) The rear part can continue laying eggs or stinging. (6) When during a fight, an ant is beheaded or its rear is torn off, the other two parts keep right on fighting ferociously. (Topic nouns are underscored)

ANALYSIS CHART

Topic Sentence: The segments of an ant's body can go on living for awhile even after being broken apart.

Topic Predicate: can go on living for awhile even after being broken apart.

Topic Noun: The segments of an ant's body

Method of Expansion: Combination (of reasons, details, and examples)

Sentence	Information	Comparing Phrase	Topic Predicate
2	separate blood, breathing, nerves	tells why	
3	head bites, feels	leads to	can go on living for awhile even broken apart
4	middle runs, kicks	leads to	
5	rear lays eggs, stings	leads to	
6	beheaded keeps fighting	shows that	

(10)

ONE-LEVEL PARAGRAPH

FIGURE I

Paragraph Model #2:

Many ancient beliefs are responsible for superstitions practiced today. (2) In ancient times people thought trees were the dwelling place of gods. (3) They believed that these spirits were kindly and would protect those who asked for help. (4) Now people who do not believe that spirits live in trees still knock on wood for good luck. (5) The Hindus of ancient India believed that if thirteen people sat together, misfortune would befall one of them. (6) Today many believe that thirteen is an unlucky number. * (7) Most office building and nearly all hotels are without a thirteenth floor. * (8) Years ago people who feared witches kept animals to scare witches away. (9) The animals became symbols of safety. * (10) Clubs, school teams and political parties have animals for mascots. *

Topic Nouns underscored

* Implied but not stated: "because of that ancient belief."

Sequential signals underscored twice.

ANALYSIS CHART

Topic Sentence: Many ancient beliefs are responsible for superstitions practiced today.

Topic Predicate: are responsible for superstitions practiced today.

Topic Noun: Many ancients beliefs

Methods of Expansion: Examples

Sentence	Information	Comparing Phrase	Topic Predicate
Clarifying #2	Tree-dwelling gods	shows that	
Secondary #3	Protective Spirits		
Secondary #4	Knock on wood		
Clarifying #5	Misfortune for thirteen together	shows that	are responsible for superstitions practiced today
Secondary #6	Thirteen unlucky number		
Secondary #7	Buildings without 13th floor		
Clarifying #8	Animals kept witches away	shows that	
Secondary #9	Symbol for safety		
Secondary #10	Mascots		

TWO-LEVEL PARAGRAPHS

FIGURE 2

After model study, the students formulated Writer's Charts to serve as plans for writing their own paragraphs. All student composition assignments required writing from a Writer's Chart. The Writer's Charts had to include all the information about the paragraph to be written that the Analysis Chart contains about the model paragraph.

The teachers were given the following instructions for helping students to develop Writer's Charts.

1. Review reading selection and discuss how topic sentence is related to the reading selection.

2. Allow several students to state the topic sentence in their own words.

3. Have students suggest ideas for development of the topic sentence. List all suggestions on the board. Ask students to use the comparing phrases to determine the usefulness of ideas to the potential readers.

4. Discuss the topic noun, ask students to list some alternate forms that can be used in the paragraph.

5. Allow students to form writer's plans. Less able students may use class ideas to form their plans. Other students may develop their own ideas for their plans. Plans contain no sentences other than the topic sentence--short phrases of four or fewer words are the rule.

6. Writer's Charts should be checked by the teacher so that no disunifying ideas are used (Lessons 1-12).

The seventh grade students were taught one-level paragraphs, (Model 1), that is paragraphs containing clarifying sentences only. The ninth and tenth grade students were taught both one-level and two-level paragraph development (Model 2).

THE STUDY

Design

The paragraph data were subjected to a two-way repeated measure analysis of variance in order to determine:

1. whether or not there are differences in the Total Effectiveness mean scores of research paragraphs under the two different teaching methods when students were classified by language level.

2. whether or not there are differences in the General Impression mean scores of research paragraphs under the two different teaching methods when students were classified by language levels.

3. whether or not there are differences in Readability mean scores of research paragraphs under the two different teaching methods when students were classified by language level.

4. whether or not there are differences in Analysis-Scale mean scores of research paragraphs under the two different teaching methods when students were classified by language level.

The post-test-only control groups design described by Campbell and Stanley (1966 p.25) was utilized. The design took the following form:

R	X	O_1
R		O_2

The independent variables were: Group: 1 or 2, according to reading ability; the treatment: experimental or control, according to the type of written composition instruction received. The dependent variables were: mean paragraph Readability scores; mean paragraph Impression scores; mean paragraph Analysis-Scale scores, and mean paragraph Analysis sub-scores. The level of significance was set at .05.

Subjects

The one-hundred eighty paragraphs (90 written by experimental students and 90 written by control students) evaluated for this research were written by 7th, 9th and 10th grade students in the Hartford Public Schools. Students from 7th, 9th and 10th grades were selected because their English courses were most easily matched. Students in the 11th and 12th grades were excluded because many of these students are allowed to take electives which vary in content and emphasis and are more subject to teacher preference in materials and methods. Nearly all these students were black, West Indian, or Hispanic. They were all academic classroom students--no honors or basic studies students were in the sample. All students read within the 2nd and 3rd quartiles of the national norm for their grade levels as measured by the Metropolitan Achievement Tests. Students whose scores were in the 2nd quartile were considered "low average" language level. Those whose scores were in the 3rd quartile were considered "average" language level. About two-thirds of the entire research sample were low average language level.

Treatment

The control group was provided English courses comparable to those provided students the previous year. The primary change required by the research was that eighteen composition lessons had to be taught and that a writing assignment accompany each writing lesson. The writing lessons were designed by the teachers for the purpose of meeting the objectives agreed upon for both the experimental and control groups' instruction. The objective was: that the students write themes with appropriate content, unity, coherence, effective language and diction,

and with correctly structured sentences free of most mechanical errors. It was also agreed that most writing assignments should be in some way related to the students' reading selections. Each writing assignment was read and corrected by the teacher before being returned to the student. Revision was required. In addition to literature and writing lessons, the control groups' language study included worksheets (selected or constructed by the teacher) which provided usage, punctuation and capitalization, and vocabulary exercises for the students.

The experimental group was provided English courses as much like the control group's as possible except that the written composition instruction employed the new rhetoric lessons prepared for the research.

The teachers who taught the new rhetoric lessons were given four 3-hour workshops to prepare them to teach new rhetoric. Most workshop time was devoted to training teachers to follow the procedure for teaching the rhetoric lessons. Some time was used to explain the theory of the new rhetoric approach.

The seventh graders were taught <u>one-level</u> paragraph development. The ninth and tenth graders were taught a short course in the <u>one-level</u> paragraph and <u>two-level</u> paragraph development. No direct sentence fluency exercises were used during the experiment. Each rhetoric lesson was accompanied by a writing assignment that was teacher corrected. Revision was required.

<u>Testing</u>

After six months instruction, dittoed sheets with directions and six different topic sentences were passed to each student. Post-test topic sentences, unlike instructional topic sentences, were not based

on reading selections, but were topics of "general" interest.

INSTRUMENTATION AND MEASUREMENT

Impression. The general impression method as described by Braddock (1963) was used to assess the general quality of each paragraph. Each paragraph was evaluated on a scale of 1-4 by four content area teachers. The teachers were assembled for two 2½ hour periods during which each teacher read about forty-five paragraphs per hour and assigned 1 (poor), 2 (fair), 3 (good), or 4 (excellent) to each paragraph. All paragraphs were rated by each teacher. The ratings for each paragraph were averaged, then multiplied by twenty-five. The perfect Impression Score for a paragraph is 100.

Readability. Readability of the research samples was measured by the cloze procedure. The paragraphs were type-written with about every 5th word deleted from the text. Each paragraph had twnety deletions. A set of six paragraphs on different topics was assembled as a test set. Owing to the different number of paragraphs on each topic, some paragraphs were used more often than others. Forty-eight different test sets were created. The correct response to each cloze item was determined to be the same word that was deleted. No synonyms, derivations, or inflections (except singular for plural or plural for singular) were accepted. These tests were administered to seven 10th grade English classes. Each paragraph was read two or three times. A Readability Score for each paragraph was arrived at by first averaging the number of correct responses given by the readers and then multiplying the number by five. Thus a perfect Readability Score for any paragraph was 100.

The cloze procedure has been used to evaluate elements determining readability by such researchers as Rudell, Smith, Stotsky, and Fagon (1975), Simon, (1971), and is, according to Stosky, (1976) preferable to the investigator's composing comprehension questions which may themselves vary in difficulty and thereby obscure the actual readability level of the passage. Before the students took the research cloze paragraph tests, they were given practice exercises consisting of cloze paragraph comprehension tests made from eighth grade reading materials.

Analysis Scale. The effectiveness of the paragraphs was measured by experienced English teachers who used the analytic method with the modified Buxton Scale. The items on this scale are the same as the instructional objectives for the composition instruction. Each paragraph was rated by two English teachers who had not been involved in the research instruction. The procedure suggested by Braddock (1963) was followed. A score sheet was provided for each rating. No marks were placed on the paragraphs. The scores of the two raters were averaged. Since there were six items on the rating scale, this score could be from 0 to 60. Forty was added to that average rating so that a perfect Analysis Score for any paragraph is 100.

RESULTS

The Total Effectiveness scores of the research paragraphs were compared by the instruction given to the students--new rhetoric or conventional--and by the language level of the students--low average or average. The Total Effectiveness score is the composite score derived from the General Impression score, Readability score, and the Analysis-Scale score. The interaction of type of instruction and language level was also tested. Tables 1 and 2 show the results of

these comparisons.

TABLE 1

Mean Total Effectiveness Scores of 180 Research Paragraphs According to Instructional Method and Language Level

	Instructional Method		Total
	New Rhetoric	Conventional	Language Level
Language Level			
Average	210.04	179.88	194.96
Low Average	181.58	166.40	173.99
Total Instructional Method	192.97	171.79	

TABLE 2

Analysis of Variance F-Values for Total Effectiveness of Research Paragraphs Under Two Different Teaching Methods When Students Were Classified By Language Level

Source of Variation	F	Significance Level
Method	4.64	.033
Language Level	4.68	.032
Interaction	1.12	NS

It is evident from an examination of the F-values in Table 2 that the experimental paragraphs were significantly better than the control paragraphs at the .05 level of confidence established for the research. Table 2 also shows that the average-language level students wrote

significantly more effective paragraphs than low-average-language level students. This finding is in agreement with Loban (1965) who contends that reading level remains the most reliable predicator of other language learning ability. Finally, since the results show that there was no interaction between language level and treatment, it must be concluded that neither the experimental treatment nor the control treatment's effectiveness is related to the language-level of the students.

A clear understanding of the research results demanded some further analysis of these findings. Therefore, each of the three Total Effectiveness Sub-Scores was studied separately in the same manner as described above for the composite score.

Tables 3 and 4 show the results of the comparisons of the General Impression scores.

TABLE 3

Mean General Impression Scores of 180 Research Paragraphs According to Instructional Method and Language Level

	Instructional Method		Total
	New Rhetoric	Conventional	Language Level
Language Level			
Average	70.66	62.86	66.76
Low Average	58.57	56.57	57.57
Total Instructional Method	63.40	59.08	

TABLE 4

Analysis of Variance F-Values for General Impression of Research Paragraphs Under Two Different Teaching Methods When Students Were Classified By Language Level

Source of Variation	F	Significance Level
Method	2.54	NS
Language Level	4.72	.01
Interaction	.01	NS

An examination of the F-values reveals that there was no significant difference between the mean General Expression score of the experimental paragraphs and the mean General Impression score of the control group. It also reveals that there was significant difference between the performance of language level groups at the .01 level of confidence.

Tables 5 and 6 show the comparisons of the Readability Scores.

Mean Readability Scores of 180 Research Paragraph According to Instructional Method and Language Level

	Instructional Method		Total
	New Rhetoric	Conventional	Language Level
Language Level			
Average	60.49	48.6	54.55
Low Average	49.54	41.35	45.47
Total Instructional Method	53.91	44.27	

TABLE 6

Analysis of Variance F-Values for Readability of Research Paragraphs Under Two Different Teaching Methods When Students Were Classified By Language Level

Source of Variation	F	Significance Level
Method	2.99	.86
Language Level	1.19	NS
Interaction	.18	NS

The difference between the mean Readability score of the expermental paragraphs and the mean Readability score of the control paragraphs is not significantly different at the .05 level of confidence set by the research, but it is significant at the .1 level of confidence. It should be noted that there was no significant difference between the performance of the two language level groups on this measure.

The third major component of the Total Effectiveness score was the Analysis-Scale Score. Tables 7 and 8 present those comparisons.

Mean analysis-Scale Scores of 180 Research Paragraphs
Mean Analysis-Scale Scores of 180 Research Paragraphs According to Instructional Method and Language Level

	Instructional Method		Total
	New Rhetoric	Conventional	Language Level
Language Level			
Average	78.90	68.40	73.65
Low Average	73.47	68.48	70.98
Total Instructional Method	75.73	68.46	

TABLE 8

Analysis of Variance F-Values for Analysis-Scale Scores of Research Paragraphs Under Two Different Teaching Methods When Students Were Classified By Language Level

Source of variation	F	Significance Level
Method	16.55	.00
Language Level	2.61	.07
Interaction	.63	NS

Tables 7 and 8 indicate that the experimental paragraphs were significantly superior to the control paragraphs. Table 8 also indicates a moderately significant difference in the performance of the language level groups. As in all the other comparisons there was no interaction between instructional method and language level group.

Since none of the comparisons showed significant interaction between reading level and response to treatment, there is no reason to believe that the relative effectiveness of the experimental treatment and the control treatment is dependent upon previously achieved language skills of the students being taught.

Given the evidence cited above it was concluded that the experimental paragraphs demonstrated significantly more proficiency in written expression than was demonstrated by the control paragraphs. But the disparity between the results of those three measures raised a question concerning the specific source of the superiority demonstrated in the experimental paragraphs.

Since the Analysis-Scale score yielded the only highly significant mean difference obtained by any of the three research measures, the Analysis-Scale sub-scores were compared.

Table 9 shows the results of t-tests used to compare the means of the experiemtnal and control groups' Analysis Scale sub-scores. These comparisons show that the experimental paragraphs were significantly superior in the areas of unity, coherence, and content, but that there were no significant differences between the experimental and control paragraphs in the areas of language, diction, sentence structure, or mechanical correctness.

TABLE 9

T-TESTS on the Analysis-Scale Sub-Scores

Variable	Group	Mean	T	DF	S
Unity	Experimental	7.48	9.47	139.65	.000
	Control	4.75			
Coherence	Experimental	6.99	7.76	140.09	.000
	Control	4.72			
Content	Experimental	6.44	3.33	160.20	.001
	Control	5.42			
Language	Experimental	5.06	0.81	173.00	NS
	Control	4.79			
Sentence Structure	Experimental	4.92	0.78	170.97	NS
	Control	4.66			
Mechanics	Experimental	4.62	0.71	170.76	NS
	Control	4.39			

CONCLUSIONS AND DISCUSSION

The data indicate that the experimental treatment group wrote paragraphs that were more effective than the paragraphs written by the control treatment group. Further, the data indicate that the greater effectiveness of the experimental paragraphs was owing to superiority in the areas of unity, coherence, and content. The data reveal equivalent effectiveness in the areas of language, sentence structure, and mechanical correctness. Neither the experimental treatment nor the control treatment's effectiveness was related to language level of the students.

General Impression

The Impression score is probably the most realistic and practical assessment of the general quality of written material. Braddock (1963) indicated its realiability in the lower .90's. Moreover, this seems most akin to the natural response to a possible reading experience--the reader skims and from a general impression decides whether to pursue the opportunity to read on or to reject it. The fact that the Impression score revealed no significant difference between the treatment paragraphs and the control paragraphs suggests that the general reader demands more from a paragraph than unity and coherence and adequate content, and points up the need for instruction that is aimed at the other areas of written expression.

Readability

The readability score has qualified use in making pedagological decisions concerning the research lessons. That the experimental paragraphs were more readable, even at the .1 level of confidence supports Alan Robinson's (1978) statement that specific elements of the paragraph as related to the topic sentence make paragraphs more readable.

The complexity of using student readers to evaluate student writing makes it inappropriate to draw any firm conclusions. That on this single measure better readers did not appear to be better writers raises some questions as to the actual reliability of this measure in this instance. Readability is no doubt closely related to unity and coherence, but it is also related to sentence syntax, language usage, and diction. Perhaps because the students who read the paragraph share certain language patterns the effect of syntax, usage, and diction was obscured. These readability scores turned out to raise questions which are interesting but beyond the scope of this research effort.

Analysis

Analysis scores identified the strength of the new rhetoric lessons taught during the research. The lesson did in this instance teach unity, coherence, and appropriate choice of content which are in rhetoric invention and arrangement. The noteworthy implication is that these elements can be identified and taught directly. These lessons were intended to teach invention and arrangement. They did no more than that.

O'Hare (1973) discovered that sentence-combining teaches sentence syntax (style) and thereby improves the quality of student writing. In discussing his findings, he pointed out the need to teach invention and arrangement as well as style. The new rhetoric lessons used in this research do have some potential because they provide content and procedure for teaching invention and arrangement. Neuleib (1977) contends that students will learn to write unified, coherent paragraphs if their teachers do not accept paragraphs that are not unified and coherent. Implicit in that belief must be that the teachers have some direct method for teaching unity and coherence. Obviously, having a writing effort rejected by the teacher is not a positive learning experience for most students.

Invention and arrangement are essentially problem solving activities. Rubinstine's Patterns of Problem Solving suggests that one way to help students learn to solve problems is to have both student and teacher think aloud as they work through ideas. Have them vocalize their thoughts as they analyze relationships, sort concepts, and form generalization (1977). This is precisely the kind of mental gymnastics that the teacher and students engaged in as they carried out the pre-writing activities for determining the relationships of various ideas and pieces of information to topic predicates. These were mental exercises in thought manipulation that students gradually learned to carry out independently.

That significantly greater unity and coherence was accompanied by better content supports Christensen's (1967) belief that solving the problem of how to say helps solve the problem of what to say. Having a plan of attack seemed to help students generate content. These experimental paragraphs had more closely related ideas and more cogent information than the control paragraphs. Having learned thought manipulation tactics, the students seemed to be free from nervous "pencil gnawling" and distracting false starts.

Finally, though this research presents a strong argument for teaching invention and arrangement, it also presents a strong argument for teaching style. The data reveal that to teach invention and arrangement is not to teach style. Clearly students need to understand the sentence as well as to understand the paragraph. "In the last analysis the question as to which of these comes first, which is more important becomes totally irrelevant. In their essential inseparability invention, arrangement, and style are more than a tripod. Invention, arrangement, and style are a trinity, and are indivisibly." (O'Hare, 1973)

LIMITATIONS OF THIS STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

1. The use of topic sentences as post-tests may have given the ex-

perimental classes some advantage over the control classes. It would be interesting to discover whether the new rhetoric group could write their own topic sentences and still write paragraphs which were more effective than a conventional group's paragraphs.

2. The experimental group teachers were given a pre-instruction workshop on the new rhetoric lessons and had continued access to the researcher for clarification of the lessons and procedures. Would these lessons have been effective without the availability of a consultant?

3. The new rhetoric lessons have three major components--model analysis, pre-writing discussion, formulation and use of a Writer's Chart. Would one or two of these components work effectively without the other?

4. The new rhetoric classes were given eighteen lessons directed at paragraph unity and coherence. The instruction was successful, but were all these lessons necessary? Would fewer have been effective? Would fewer of these lessons plus other lessons addressed to some other elements of written expression, sentence fluency, for example, have been more effective and a wiser use of student time and effort?

BIBLIOGRAPHY

Bateman, D.R. and Zidonis, F.J. 1964. The Effect of a Knowledge of Generative Grammar upon the Growth of Language Complexity. Columbus: The Ohio State University, U.S. Office of Education Cooperative Research Project 1946.

Buxton, Earl, "An Experiment to Test the Effects of Writing Frequency upon Students' Skill in Written Expression," (1958) in Richard Braddock, Research in Written Composition: Urbana, Illinois, NCTE, 1963.

Becker, Alton L., "A Tagmemic Approach to Paragraph Analysis," College Composition and Communication, XVI (1965) 237-242.

Becker, A.L., "A Tagmemic Approach to Paragraph Analysis," The Sentence and the Paragraph, Urbana, Illinois: NCTE, 1966, 32-47.

Bloomfield, "Linguistics and Reading," Linguistics for Teachers, John Savage, ed, Chicago: SRA, 1973, p. 234.

Booth, Wayne, "The Revival of Rhetoric" New Rhetoric, Martin Steinman, ed, New York, Charles Scribner's Sons, 1967, 2-15.

Braddock, Richard, Research in Written Composition. Urbana, Illinois: NCTE, 1963

Campbell, Donald and Stanley, Julian, Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally College Publishing Co., 1963.

Christensen, Francis, "A Generative Rhetoric of the Paragraph" The Sentence and the Paragraph, Urbana, Illinois: NCTE 1966, 60-87.

Christensen, Francis, Notes Toward a New Rhetoric, New York: Harper & Row, 1967.

Christensen, Francis, The Christensen Rhetoric Program, New York: Harper & Row, 1968.

Commission on English, Freedom and Discipline in English, New York: College Entrance Examination Board, 1965.

D'Angelo, Frank, "The Search for Intelligible Structure in Teaching of Composition," College Composition and Communication, XXVII (1976), 142-147.

Groff, Patrick, "Research Critiques," Elementary English, 48 (1971).

Hogen, Lyman, "An Analysis of Transitional Devices in Student Writing" Research in Teaching English, Winter, 1970.

Hunt, Kellog W., Grammatical Structures Written at Three Grade Levels. Research Report No. 3. Urbana, Illinois: NCTE, 1965.

Kincaid, Gerald, "Some Factors Affecting Variations in the Wuality of Studnets' Writing" (1953) in Richard Braddock, Research in Written Composition: Urbana, Illinois, NCTE, 1963.

Leedy, Paul D., Read with Speed and Precision, New York: McGraw-Hill Book Company Inc., 1963.

Loban, W.D., Language Ability of School Children, K-12, Research Report No. 3, U.S. Office of Education Cooperative Research Project SAE 2787.

Mellon, John C., Transformational Sentence-Combining: A Method for Entrancing the Development of Syntactic Fluency in English Composition. Urbana, Illinois: NCTE 1969.

Miles, Josephine, "What We Already Know About Composition and What We Need to Know." College Composition and Communication, XXVII (1976), 136-141

Miller, B.D., and Ney, J.W., "The Effect of Systematic Oral Exercises on the Writing of Fourth-Grade Students." Research in English, 2:44 - 61.

Murray, Donald, A Writer Teaches Writing, Boston: Houghton Mifflin Company, 1968.

Neuleib, Janice, "The Relation of Formal Grammar to Composition," College Composition and Communication, XXVIII (1977), 247-249.

O'Hare, Frank, Sentence Combining, Urbana, Illinois: NCTE, 1973, p. 70.

Potter, Robert, "Sentence Structure and Prose Quality; an Exploratory Study," Research in Teaching English. Spring 1975.

Richards, I.A., The Philosophy of Rhetoric, New York: Oxford University Press, 1965.

Robinson, Alan et al., Strategies for Reading (Paragraphs), Boston: Allyn and Bacon, Inc., 1978.

Rodgers, Paul C., "A Discourse-centered Rhetoric of the Paragraph." College Composition and Communication, XVII (1966), 2-11.

Rubinstine, M., Patterns and Problem Solving in Phi Delta Kappan 59, December 1977, p. 257.

Rudell, Smith, Stotsky & Fagan, "The Writing Assessment" John Mellon, National Assessment and Teaching English, Urbana, Illinois, NCTE 1975.

Sanders and Littlefield, "Perhaps Test Essays Can Reflect Significant Improvement in Freshman Composition." Research in Teaching English, Fall, 1975.

Simon quoted by Jane E. Porter, "Research Report." Language Arts, October, 1975.

Squire, James and Applebee, Roger K., "National Study of High School English Programs" A Record of English Teaching Today," English Journal, May, 1966.

Stallard, Charles, "Composing: A Cognitive Process Theory" College Composition and Communications, XXVII (1976) 181-184.

Steinmann, Martin, Jr., "Rhetorical Research: New Rhetoric, Martin Steinmann, ed, New York, Charles Scribner's Sons, 1967, p. 16-32.

Stotsky, Sandra, "Sentence-Combining: Its Effect on Written Language Development and Reading Comprehension," Research in Teaching English, Spring, 1976.

Swets, Paul W., "Salvaging Rhetorical Instruction: An Experimental Approach," College Composition and Communication, XXVIII (1977) 236-239.

Winterowd, Ross, Rhetoric A Synthesis. New York: Holt, Rinehart and Winston, Inc., 1968.

Wyatt, Nita, "A Study of the Relationship of Extensive Reading to Certain Writing Skills of Selected Groups of Sixth Grade Children." Bulletin of Education. University of Kansas, 1960.

Young, Richard and Koen, Frank, The Tagmemic Discovery Procedure: An Evaluation of Its Uses in the Teaching of Rhetoric. The National endowment for Humanities, Grant No. EO 5238-71-116, Washington, D.C. 1973.